



Dkt. 64753 CCD

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Masanori SUZUKI et al.

Serial No.: 09/826,789

Group Art Unit 1756

Filed : April 5, 2001

Examiner J. L. Dote

For : TONER FOR DEVELOPMENT OF ELECTROSTATIC
LATENT IMAGES, METHOD OF FORMING IMAGES,
IMAGE FORMATION APPARATUS, TONER CONTAINER
CONTAINING THE TONER THEREIN, AND IMAGE
FORMATION APPARATUS EQUIPPED WITH THE
TONER CONTAINER

SECOND DECLARATION OF MASANORI SUZUKI UNDER 37 C.F.R. § 1.132

I, Masanori Suzuki, declare that:

1. I am the same person who executed a previous Declaration under 37 C.F.R. § 1.132 on August 1, 2003, in the above-identified application. As I stated in that previous Declaration, I am one of the applicants named in that application, and am a joint inventor of the invention described and claimed therein.

2. I am and for about 16 years have been employed by Ricoh Company, Ltd., assignee of the above-identified application, in the field of electrophotography. In 1989, I graduated from Aoyamagakuin University with a Master's degree in chemistry. I presented a triboelectrification model of two component developer in the Society for Imaging Science & Technology Non-Impact Printing Conference 7 (NIP7) held in 1991.

3. The description of each one of the toners in the Examples and Comparative Examples of the specification of the above-

identified application is sufficiently complete so that a person skilled in the art, following that description, would certainly produce a toner having essentially the same saturation magnetization at a magnetic field of 10 kOe as the value given for that toner in the specification.

4. The saturation magnetization of a toner changes depending on the magnetic field at which the saturation magnetization is measured. However, when the magnetic field is not less than 5 kOe, the saturation magnetization is almost the same at different fields, although the profile of the magnetization curve is different at different fields.

5. One-component developers include a magnetic material to obtain a magnetic attraction force from a magnetic sleeve to be held thereon. In contrast, the toner of a two-component developer is held on a carrier by an electrostatic force, wherein the carrier is held on a magnetic sleeve by the magnetic attraction force. Therefore, when a one-component developer, which typically has a high saturation magnetization, is used in a two-component developer, the one-component developer receives a strong attraction force from a magnet contained in a developing sleeve as well as electrostatic force formed between a carrier and the developer, and thereby the one-component developer has poor developing ability, resulting in serious decrease of image density. In contrast, the toner of the invention described and claimed in the above-identified application includes a magnetic material as a colorant and has an appropriate saturation magnetization. Therefore, the toner is appropriately attracted by a magnetic sleeve, and thereby good images can be produced without causing background development in the resultant images and without decreasing image density. Namely, the saturation magnetization of

toner in the present invention is smaller than those of one-component developers.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Masanori Suzuki
Masanori SUZUKI

Date: April 1, 2005